IN THE ABSTRACT:

Please add the following text to page 31, below the term "Abstract":

--The invention relates to BLNK proteins, nucleic acids encoding BLNK proteins, antibodies to BLNK proteins, and methods for screening candidate bioactive agents. --

REMARKS

Claims 35-36, 38-40 and 42-45 are pending. Please cancel claims 37 and 41 without disclaimer or prejudice. Claims 35and 39 have been amended as suggested by the Examiner to overcome the rejection based on lack of written description. Support for amendments of claims 35 and 39 can be found at page 20, lines 6-8; and page 24, lines 11-24 of the specification. Claim 45 has been amended for clarity. Claims 46 and 47 have been newly added. Claims 46 and 47 are independent forms of claims 36 and 40 respectively. A version showing changes made is attached for the Examiner's convenience. An appendix of the pending claims is also attached for the Examiner's convenience.

Rejections based under 35 U.S.C. § 112, first paragraph

Claims 35-45 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicants respectfully disagree.

The Examiner states that the specification describes , the protein, BLNK1, and its splice variant, BLNK2, and discloses the amino acid sequence of BLNK1(SEQ ID NO:1) as well as the nucleotide sequence encoding it (SEQ ID NO:2), but states that the specification is silent regarding the sequences of other BLNK protein and nucleic acid species to which the claims are drawn.

As a preliminary matter, newly added claims 46 and 47 comprise an amino acid sequence of SEQ ID NO:1 and a nucleotide sequence of SEQ ID NO: 2, respectively and as stated by the

Examiner is adequately described in the specification and should be allowed. See Office Action at page 2(end of last paragraph) and top of page 3.

In addition, the Examiner states that the rejection of claims 35-45 may be overcome by limiting the claims to recombinant BLNK proteins having the specific functions characteristic of the proteins as described in the specification. See Office Action at page 5.

Applicants have taken the Examiner's suggestion to overcome this rejection by amending the claims by adding the limitation that the recombinant BLNK protein binds to a protein selected from the group consisting of Grb2, PLCγ, Vav, and Nck. This should overcome the Examiner's rejection for lack of written description.

Now the recombinant BLNK protein not only comprises an amino acid sequence having at least about 95% identity to the amino acid sequence set forth in SEQ ID NO:1(which is significant homology to the regions schematically shown in figure 7 and as described by the specification for any BLNK protein, specification at page 5, lines 27-30; page 6, lines 1-3) but it also must bind to a protein selected from the group consisting of Grb2, PLCγ, Vav, and Nck. There fore, an adequate description of a recombinant BLNK protein, as claimed, has been met. Applicants respectfully request the withdrawal of the rejection.

Rejection based under 35 U.S.C. § 112

Claim 45 is rejected under 35 U.S.C § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner states the claim 45 is rejected as vague and indefinite in view of the phrase" wherein a decrease in the binding of said BLNK protein to said BLNK binding partner in the presence of said candidate bioactive agent indicates that said candidate bioactive agent is which modulates the activity of a BLNK protein" because it is unclear what is intended.

Claim 45 has been amended for clarity by deleting the above mentioned phrase and including the phrase "wherein binding of said candidate bioactive agent inhibits said BLNK protein from binding to said BLNK binding partner". Support for this amendment can be found in the specification at page 20, lines 5-12.

Rejection based under Double patenting obviousness-type rejection

Claims 35-37 and 39-42 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 5,994,522. Applicants will submit a terminal disclaimer, if necessary and appropriate, once there is an indication of otherwise allowable claims. Applicants respectfully request the withdrawal of the rejection.

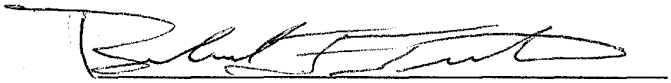
CONCLUSION

Applicants submit that the claims are now in condition for allowance and early notification to that effect is respectfully requested. If the Examiner feels there are further unresolved issues, the Examiner is respectfully requested to phone the undersigned at (415) 781-1989.

Respectfully submitted,

DORSEY & WHITNEY LLP

Dated: February 24, 2003



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VERSION SHOWING CHANGES MADE

35.(Amended) A recombinant BLNK protein, comprising an amino acid sequence having at least about 95% identity to the amino acid sequence set forth in SEQ ID NO:1 and binds to a protein selected from the group consisting of Grb2, PLCγ, Vav, and Nck .

37.(cancel)

38. (amended) The recombinant BLNK protein according to Claim 35 [or 37], wherein said BLNK protein comprises an amino acid sequence which lacks at least one tyrosine phosphorylation site corresponding to a tyrosine phosphorylation site selected from the group consisting of Tyr71, Tyr83, Tyr95 , Tyr177 and Tyr187 in SEQ ID NO:1.

39. (Amended) A recombinant BLNK protein, wherein said BLNK protein comprises an amino acid sequence which is encoded by a nucleic acid sequence having at least about 95% identity to the nucleic acid sequence set forth in SEQ ID NO:2 and wherein said recombinant BLNK protein binds to a protein selected from the group consisting of Grb2, PLCγ, Vav, and Nck.

40. The recombinant BLNK protein according to Claim 39, wherein said BLNK protein comprises an amino acid sequence encoded by the nucleic acid sequence set forth in SEQ ID NO:2.

41.(cancel)

42.(amended) A pharmaceutical composition comprising the BLNK protein according to any one of Claims [35-45] 35, 36, 38, 39 and 40.

43. An antibody, which will bind to the BLNK protein according to any one of Claims [35-41] 35, 36, 38, 39 and 40.

45.(amended) A method for screening for a bioactive agent which modulates the activity of a BLNK protein, comprising:

a) combining a BLNK protein, a candidate bioactive agent, and a BLNK binding partner selected from the group consisting of Grb2, PLCγ, Vav, and Nck; and

b) determining the binding of said BLNK protein to said BLNK binding partner;

wherein said BLNK protein comprises an amino acid sequence having at least about 95% identity to the amino acid sequence set forth in SEQ ID NO:1, wherein said BLNK protein binds to said BLNK binding partner in the absence of a candidate bioactive agent, and wherein [a decrease in the binding of said BLNK protein to said BLNK binding partner in the presence of said candidate bioactive agent indicates that said candidate bioactive agent is which modulates the activity of a BLNK protein] <u>binding of said candidate bioactive agent inhibits said BLNK protein from binding to said BLNK binding partner</u>.

46. (new) The recombinant BLNK protein, wherein said BLNK protein comprises the amino acid sequence set forth in SEQ ID NO:1.

47. (new) The recombinant BLNK protein, wherein said BLNK protein comprises an amino acid sequence encoded by the nucleic acid sequence set forth in SEQ ID NO:2.